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## HURRICANE HARVEY MANAGEMENT REPORT

*Information contained in this report reflects HQ and regional reporting from the most recently completed operational period as well as other reports provided by HQ, regional and interagency sources. The Senior Leadership Briefing and DHS Component Actions Reports are attached.*

### National Incident Management Objectives

- Objective 1: Ensure that health and safety of the EPA response is considered at all times.
- Objective 2: Establish an incident management structure and processes employing the Incident Command System to enable effective overall management of the event with deployment of resources (staff and equipment) in a rapid, aggressive and well-coordinated manner.
- Objective 3: Ensure prompt review and processing of Fuel Waiver requests.
- Objective 4: Prepare for and provide Rapid Assessment of industrial facilities as requested by the States or under EPA's statutory program responsibilities for CERCLA Superfund, RMP and FRP facilities. Working with agencies in affected States, contact industrial sources within the impacted areas to determine their operational status and determine what support can be provided with the monitoring of the start-up of industrial sources along the coastal areas.
- Objective 5: Prepare for and provide Rapid Assessment & Technical Assistance Drinking Water & Wastewater facilities as requested by the State or local government. EPA will support State agencies in contacting drinking water and waste water systems.
- Objective 6: Prepare a Sustained Response Plan that outlines the resource and equipment needs for a long duration response.
- Objective 7: Activate the Agency's Crisis Communication Plan to insure effective and efficient coordination of all incident communications.
- Objective 8: Encourage a collaborative federalism approach, where national state and local governments interact cooperatively and collectively to solve common problems.

## Executive Summary

- EPA has concurred with the State of Texas Plan for Vector Control which calls for the aerial spraying of the insecticides containing Naled.
- The TCEQ Austin phone bank is beginning to reduce its operations; EPA is evaluating options to shift 10 personnel from the phone bank to other areas.
- The Texas Commission on Environmental Quality (TCEQ) and EPA have completed surveys of 4,852 drinking water facilities and 2,908 wastewater facilities in the impacted area. Additional members will arrive this week to join the drinking water and wastewater assessment teams currently established in Houston to continue conducting assessments in the Harris County area.
- EPA will publicly release flood water and ASPECT air data from the Arkema fires. No chemicals were found above levels of concern outside the 1.5-mile evacuation area. EPA ordered Arkema to provide a detailed timeline of events and to respond within 10 days to questions about the handling of organic peroxides, which are combustible if not kept refrigerated, the amount of chemical materials, and the measures taken in advance to guard against flooding and loss of electricity.
- EPA has received notifications from 8 companies covering 12 Louisiana/Texas gulf facilities that impending storms may cause a delay or impediment to performance in complying with provisions of their Consent Decrees and anticipates that the 25-27 refineries in the gulf will be submitting their formal force majeure claims related to Harvey.
- DOT Pipeline and Hazardous Material Safety Administration (PHMSA) has issued an emergency waiver order to assist EPA's efforts to remove, transport and dispose of hazardous materials as part of its response to Hurricane Harvey.
- The Agency for Toxic Substances and Disease Registry (ATSDR) – Region 6 activated the Texas Poison Control Center Network (six call centers) to address chemical and toxic exposure questions from the public.
- An EPA Remedial Project Manager and the EPA R6 Dive Team are onsite and overseeing the assessment at San Jacinto Waste Pits Superfund site. The Dive teams plan to begin underwater cap inspection on September 11<sup>th</sup>.
- Response teams are overseeing the removal of oil from The Signet Enterprise vessel in Aransas Pass; 60,000 gallons have been removed and an additional 8,000-10,000 gallons remain.
- A total of 26 Hazard Evaluation Teams completed assessments of Austin, Waller, Liberty, and Chambers Counties (100% completion); Montgomery, Colorado and Walker (road/flooding) Counties (90% completion), and; Fort Bend County (10% completion).
- On September 5<sup>th</sup> EPA initiated sampling at 34 NPL sites in TX to confirm that there no releases. Sampling has been completed at two sites with the remainder planned for completion by September 11<sup>th</sup>.
- EPA's Houston laboratory reopened on September 7<sup>th</sup>.
- No targeted analytes were found above the TCEQ Air Monitoring Comparison Values (AMCV) short term screening levels in neighborhoods surrounding the Valero Houston Refinery utilizing the Trace Atmospheric Gas Analyzer (TAGA). EPA staff are being repositioned to other priority assignments.

**Region 6 Significant Activities:**

The Region 6 REOC is currently activated and working under a limited Emergency Support Function (ESF) 10 FEMA Mission Assignment (MA). In addition, Region 6 has received an MA to assist TX with drinking water, wastewater, and hazmat recovery operations. This MA, for almost \$8.6 million, added 184 EPA and Coast guard (CG) personnel to the Texas Commission on Environmental Quality (TCEQ) Harvey response in Corpus Christi, Houston, and surrounding impacted areas. An additional MA for \$20,000 has been issued to deploy EPA employees to various locations which include but are not limited to the TX EOC and the FEMA RRCC to support response operations. An additional \$255,000 was added to MA 4332DR-TX-01 bringing the total to \$275,000 for providing an EPA representative at the FEMA RRCC and two EPA representatives to the TX EOC.

Mission Assignment Number	Funding Amount	Description of Assignment
MA4332DRTX3	\$8,592,000	R6 Field Ops incl. assessing drinking & waste water infrastructure, implementation of Response Manager tracking system, response to hazardous substances & oil discharges or releases.
MA4332DRTX1	\$275,000	Deployment of EPA to various locations, including but not limited to TX EOC and the FEMA RRCC to support response operations.
<b>Total Funds</b>	<b>\$8,867,000</b>	

**Number of R6 Personnel Involved:**

Personnel	EPA R6 Dallas	FEMA Denton	Texas JFO Austin	TX SOC Austin	TCEQ Austin	Houston	Corpus Christi	Beaumont/ Port Arthur	Totals
<b>R6</b>	50	1	3	3	10	36	21	5	129
<b>START</b>	9	0	0	1	1	12	9	4	36
<b>ERRS</b>	0	0	0	0	0	4	9	3	16
<b>Other Contractor</b>	1	0	0	0	0	0	0	0	1
<b>TOTAL</b>	60	1	3	4	11	52	39	12	182

### Container Recovery Operations:

Date	Containers				Total
	Drums (55gal)	Small Containers (<55gal)	Large Containers (>55gal)	Cylinders	
9/7/2017	1	0	1	3	5
Total to Date	51	35	7	10	103

### Houston, TX:

Twenty-six Hazard Evaluation (HE) Teams conducted and completed assessments of Austin, Waller, Liberty, and Chambers Counties (100% completion); Montgomery, Colorado and Walker (road/flooding) Counties (90% completion), and; Fort Bend County (10% completion). Thirty sites have been identified for follow-up within the assessment areas.

### Beaumont, TX:

Four HE Teams conducted assessments by air boat throughout Port Arthur. The team identified four new targets with unknown content. The team also performed a spill check at the Motiva facility and identified no discharges.

USCG, TCEQ, and EPA performed overflights. Although flood waters have receded significantly, targeted areas in Orange County are still inaccessible.

The City of Beaumont restored power to Beaumont's wastewater treatment plant (WWTP) and the system is currently pumping water. Due to previous low pressures, the city remains under a boil water notice. Groundwater wells remain offline. Pumps providing water to the plant from the Neuces River are currently operational. TCEQ, EPA, and members of the Texas Optimization Program for Surface Water Plants (TOPS), and city staff continue to focus on drinking water issues at the plant.

EPA responded to an active discharge that was reported at an abandoned leaking well in Orangefield. EPA contractors have placed sorbent padding and boom to contain the discharge. A hazard evaluation team has also identified a potential release from a rail car and the Texas General Land Office (TGLO) is taking the lead for coordination of the response. Teams were scheduled to perform ground assessments with TGLO and TCEQ on September 6<sup>th</sup>.

### **EPA Headquarters Significant Activities:**

The HQ EOC is activated to Level 1 in support of the Region 6 response to Harvey. The HQ EOC is coordinating on several levels with Region 6 and other Federal agencies. The HQ EOC has deployed personnel to the FEMA NRCC to staff the ESF #10 desk. EPA Senior Management that comprise

the Policy Coordinating Committee (PCC) developed and issued senior management objectives that form the basis of field strategy and tactics in response to Harvey.

Headquarters Mission Assignments:

<b>Mission Assignment Number</b>	<b>Funding Amount</b>	<b>Description of Assignment</b>
MA4332DRTX1	\$10,000	FEMA HQ ESF-10 Desk Support
4332DRTXEPA02	\$40,000	FEMA HQ ESF-10 Desk Support
<b>Total Funds</b>	<b>\$50, 000</b>	

Number of HQ Personnel Involved in the EOC:

<b>Personnel</b>	<b>AO</b>	<b>OAR</b>	<b>OCFO</b>	<b>OCSP</b>	<b>OECA</b>	<b>OEI</b>	<b>OGC</b>	<b>OLEM</b>	<b>OP</b>	<b>ORD</b>	<b>OW</b>	<b>R3</b>	<b>ATSDR</b>	<b>Totals</b>
<b>Employees</b>	1	3	0	2	2	1	1	13	1	2	1	0	1	28
<b>Contractors</b>	0	0	0	0	0	3	0	3	0	0	0	0	0	6
<b>TOTAL</b>	1	3	0	2	2	4	1	16	1	2	1	0	1	34

National Incident Management Team (N-IMAT):

EPA activated and deployed the N-IMAT (highly skilled response personnel from Regions 3, 4, and 5) to advise and assist R6 with response activities. N-IMAT is now located in Corpus Christi. The N-IMAT completed its assignment to establish an initial structure to respond to Hurricane Harvey. Eleven key leadership positions were established and are now staffed by other staff allowing initial N-IMAT staff to demobilize.

Criminal Investigation Division (CID):

EPA's Criminal Investigation Division (CID) Quick Reaction Team (QRT), now comprised of 22 EPA-CID Special Agents, is supporting the Houston Police Department in the area of Buffalo Bayou under ESF 13. QRT joins several hundred federal law enforcement officers from multiple departments and agencies in TX supporting ESF-13 missions. Several QRTs under ESF 13 are being re-routed and re-tasked to support Hurricane Irma.

Superfund NPL Sites: EPA has conducted Rapid Response Assessments at all 43 Federal Superfund sites in the impacted areas using aerial images as well as direct contact with companies who are responsible for on-going cleanup activities. EPA has determined that 41 Superfund sites in the area do not show damage or excessive flooding associated with Harvey and two sites are still in need of site inspection. EPA determined that two more sites (San Jacinto River Waste Pits and US Oil Recovery) required further inspection.

- San Jacinto: Crews found that the armor cap had eroded and initiated repairs on September 4<sup>th</sup>. An area of the southern berm where the outside part of the berm had washed out was repaired with stabilized sand. The cover over the waste material was intact and no waste was exposed. EPA's Dive Team is onsite to oversee Potential Responsible Parties (PRP) activities at the site and to confirm any anomalies.
- US Oil: On September 5<sup>th</sup>, the PRP Group pumped storm water from treatment facilities at the site and worked to make sure that enough freeboard was available for future rain events. An overflow from the facility was observed and determined to be local. No sheen or odor was found. The PRP Group has identified the problem that caused the overflow and developed a plan to fix it.

The table below contains detailed information on the 43 sites.

Superfund Sites within Federally Declared Counties						
Hurricane Harvey Rapid Response Assessment	Phase 1	Phase 2		Phase 3	All Phases Completed	County
	Rapid Response Assessment	Site Inspection Needed	Inspected	Additional Response Action		
TEXAS						
ALCOA (Point Comfort) / LAVACA BAY	8/29/17	No			8/29/17	Calhoun
BAILEY WASTE DISPOSAL	9/1/17	Yes				Orange
BRINE SERVICE CO.	8/30/17	Yes	8/30/17	No	8/30/17	Nueces
BRIO REFINING INC.	9/1/17	No			9/1/17	Harris
CONROE CREOSOTING COMPANY	9/1/17	No			9/1/17	Montgomery
CRYSTAL CHEMICAL CO.	8/30/17	No			8/30/17	Harris
DIXIE OIL PROCESSORS INC.	9/1/17	No			9/1/17	Harris
FALCON REFINERY	8/30/17	Yes	8/30/17	No	8/30/17	San Patricio
FRENCH, LTD.	9/1/17	Yes	9/4/17	No	9/4/17	Harris
GENEVA INDUSTRIES / FUHRMANN ENERGY	9/1/17	Yes	9/3/17	No	9/3/17	Harris
GULFCO MARINE MAINTENANCE	9/1/17	Yes	9/3/17	No	9/3/17	Brazona
HARRIS (FARLEY STREET)	9/1/17	No			9/1/17	Harris
HART CREOSOTING	9/1/17	No			9/1/17	Jasper
HIGHLANDS ACID PIT	9/1/17	Yes	9/4/17	No	9/4/17	Harris
JASPER CREOSOTING	9/1/17	No			9/1/17	Harris
JONES ROAD GROUNDWATER PLUME	8/29/17	No			8/29/17	Harris
MALONE SERVICES COMPANY	9/1/17	Yes	9/4/17	No	9/4/17	Galveston
MANY DIVERSIFIED INTERESTS, INC	9/1/17	No			9/1/17	Harris
MOTCO, INC.	8/31/17	No			8/31/17	Galveston
NORTH CAVALCADE STREET	8/29/17	No			8/29/17	Harris
PALMER BARGE LINE	9/1/17	No			9/1/17	Jefferson
PATRICK BAYOU	9/1/17	Yes	9/4/17	No	9/4/17	Harris
PETRO-CHEMICAL SYSTEMS, INC. (Turtle Bayou)	9/1/17	Yes	9/4/17	No	9/4/17	Liberty
SAN JACINTO RIVER WASTE PITS	9/1/17	Yes	9/3/17	Yes		Harris

Superfund Sites within Federally Declared Counties						
Hurricane Harvey Rapid Response Assessment	Phase 1	Phase 2		Phase 3	All Phases Completed	County
	Rapid Response Assessment	Site Inspection Needed	Inspected	Additional Response Action		
SHERIDAN DISPOSAL	9/3/17	No			9/3/17	Waller
SIKES DISPOSAL PITS	8/29/17	No			8/29/17	Harris
SOL LYNN / INDUSTRIAL TRANSFORMERS	8/29/17	No			8/29/17	Harris
SOUTH CAVALCADE STREET	8/29/17	No			8/29/17	Harris
STAR LAKE CANAL	8/30/17	No			8/30/17	Harris
STATE MARINE OF PORT ARTHUR	9/1/17	No			9/1/17	Jefferson
TEX-TIN CORP.	9/1/17	No			9/1/17	Galveston
TRIANGLE CHEMICAL COMPANY	9/1/17	Yes				Galveston
UNITED CREOSOTING CO.	9/1/17	No			9/1/17	Montgomery
US OIL RECOVERY	9/1/17	Yes	9/4/17	Yes		Harris
LOUISIANA						
AMERICAN CREOSOTE DERIDDER	9/01/17	No			9/1/17	Beauregard
D.L. MUD, INC.	8/29/17	No			8/29/17	Vermillion
EVR-WOOD TREATING/EVANGELINE REFINING Co.	9/01/17	No			9/1/17	Acadia
GULF COAST VACUUM SERVICES	8/29/17	No			8/29/17	Vermillion
GULF STATE UTILITIES (North Ryan Street)	8/31/17	No			8/31/17	Calcasieu
MALLARD BAY LANDING BULK PLANT	8/29/17	No			8/29/17	Cameron
PAB OIL & CHEMICAL SERVICE	8/29/17	No			8/29/17	Vermillion
SBA SHIPYARD	9/01/17	No			9/1/17	Jefferson Davis
RUSTON FOUNDRY	9/3/17	No			9/3/17	Rapides
Status Summary						
Rapid Response Assessment Completed	43					
Sites with no further action	39					
Sites in Phase 2	2					

#### EPA Laboratory/Analytical Services:

The TAGA is a self-contained mobile laboratory capable of real-time monitoring as well as sampling and analysis of outdoor air or emissions. EPA's TAGA vehicle is in Houston supporting air monitoring.

EPA's Houston laboratory reopened on September 7<sup>th</sup>. The laboratory and office building were not damaged. The mobile laboratory and response vehicles are secure and will be deployed as road conditions allow.

### Air Monitoring

The EPA mobile air monitoring TAGA bus has been conducting air monitoring in the Houston area since September 4<sup>th</sup>, most recently near the Valero Refinery. The TAGA detected benzene levels below the TCEQ Short Term Effects Screening Level (ESL), the threshold selected by the Houston Health Department as a level of concern. EPA toxicologists agree with the use of the short term ESL. The TAGA will continue assessing locations around the Houston Ship Channel and the Manchester area in southeast Houston, Texas.

EPA will publicly release flood water and ASPECT air data from the Arkema fires. No chemicals were found above levels of concern outside the 1.5-mile evacuation area. EPA will also release TAGA air monitoring data from the Manchester neighborhood in Houston. No levels of benzene, ethylbenzene, toluene, xylene, or chlorinated compounds were detected above the Texas TCEQ Air Monitoring Comparison Values short-term screening levels.

### Drinking Water/Wastewater Assessments:

EPA continues to support TCEQ in contacting owners and operators of DW/WW systems to determine their needs and operational status. Boil water orders have been issued as appropriate. Army of Corp of Engineers is working to locate pumps to provide additional water production capacity.

EPA is supporting drinking water and wastewater system assessments at the TCEQ Austin phone bank including assistance with data flow and technical regulatory questions. In addition, drinking water and wastewater assessment teams are currently established in Houston. Current Houston response activities consist of 14 EPA personnel conducting drinking water and wastewater assessments in the Harris County area.

Drinking Water and Waste Water Assessments (as September 7 <sup>th</sup> )		
Assessment Types	Daily Assessments	Total Assessments
On-Site DW Assessments	80	256
On-Site WW Assessments	47	181
Phone DW Assessments	253	4852
Phone WW Assessments	111	2908



## Other EPA Activities

### Fuel Waivers:

Affected State	Waiver Request	Date Received	Status Talking Point	Waiver Response
<b>Reid Vapor Pressure Requirements Waivers</b>				
TX	Letter from TCEQ requesting a waiver of the RVP, RFG and TxLED standards in the Governor's Disaster Proclamation	8/25/17	Granted on 8/25/17	<a href="https://www.epa.gov/enforcement/eastern-and-coastal-texas-fuels-waiver">https://www.epa.gov/enforcement/eastern-and-coastal-texas-fuels-waiver</a>
GA	Amended letter from GA Department of Natural Resources for Atlanta RVP to waive 7.8 RVP requirement to 11.5 RVP	8/29/17	Granted on 8/29/17	<a href="https://www.epa.gov/enforcement/louisiana-fuels-waiver">https://www.epa.gov/enforcement/louisiana-fuels-waiver</a>
LA	Letter from LA governor requesting a waiver of the low RVP requirements.	8/28/17	Granted on 8/28/17	<a href="https://www.epa.gov/sites/production/files/2017-08/documents/louisianafuelswaiver082817.pdf">https://www.epa.gov/sites/production/files/2017-08/documents/louisianafuelswaiver082817.pdf</a>
AR	The state is drafting a waiver request to temporarily waive the requirement for low 9.0lb RVP fuel.	8/31/17	N/A	N/A
OK	A statewide low RVP fuel waiver request was submitted and then the request was amended.	8/28/17	8/30/17	<a href="https://www.epa.gov/enforcement/second-multi-state-fuels-waivers">https://www.epa.gov/enforcement/second-multi-state-fuels-waivers</a>
<b>Dyed NRLM Diesel Fuel Waiver</b>				
TX	Letter from TX comptroller requesting a waiver of using dyed NRLM diesel fuel in motor vehicles.	8/29/17	Granted on 8/29/17; IRS expanded to cover all of TX on 9/3/17	<a href="https://www.epa.gov/enforcement/texas-diesel-waiver">https://www.epa.gov/enforcement/texas-diesel-waiver</a>

Affected State	Waiver Request	Date Received	Status Talking Point	Waiver Response
Florida	Florida Department of Environmental Protection requests use of 15 parts per million sulfur non-road diesel to be used as highway diesel fuel, waiving red dye requirements	9/6/17	Granted 9/6/17 through 9/22/17	URL pending
<b>Low Volatility Conventional Gasoline and Reformulated Gasoline (RFG)</b>				
CT, ME, MA, NH, RH, VT, DE, DC, MD, NJ, NY, and PA, FL, GA, NC, SC, VA, and WV; all mid-western states located in *PADD 2 - IL, IN, IA, KS, KY, MI, MN, MO, NE, ND, SD, OH, OK, TN, and WI; and all Gulf coast states located in PADD 3 –AL, AR, LA, MS, NM, and TX	Issuance of waivers based on requests for the allowance of regulated parties within the listed states to produce, sell, or distribute conventional winter gasoline (including BOBs) with an RVP of 11.5 psi before the addition of any ethanol in any RFG covered area. The waiver for El Paso goes until September 16 <sup>th</sup> due to their State Implementation Plan requirements.	8/30/17	Granted on 8/31/17	<a href="https://www.epa.gov/enforcement/second-multi-state-fuels-waivers">https://www.epa.gov/enforcement/second-multi-state-fuels-waivers</a>

**\*PADD: Petroleum Administration for Defense Districts**

Office of General Counsel: The EOC legal desk distributed to all EOC positions guidance from the Acting General Counsel on information management and record keeping.

Communications: On September 1<sup>st</sup>, EPA activated the Crisis Communication Plan to ensure rapid response to providing coordinated, accurate, up-to-date information regarding its field activities. EOC PIO continues to work on posting fact sheets on a variety of response topics, portraying EPA's role in the disaster and how each office provides support. On September 6<sup>th</sup> EPA HQ issued a press release discussing EPA's approval of emergency waivers (for Hurricanes Harvey and Irma) for Florida. They also jointly issued a press release with TCEQ providing an update on air quality and operational status of systems. EPA pushed a Bloomberg article highlighting the importance of securing Superfund sites and EPA's response personnel on the ground in TX and FL as well as PR and USVI. A story map from R6 is anticipated on September 8<sup>th</sup>.